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Environmental Resource Permit

Issued Date: July 29, 2016
Expiration Date: July 29, 2026

Project: Jacksonville Harbor Federal Channel Expansion
Permittee: U.S. Army Corps of Engineers ("Corps")
Permit No.: 0129277-017-BI

PROJECT LOCATION

The activities authorized by this permit are located within and adjacent to the federal navigation channel in the Atlantic Ocean and in Jacksonville Harbor between river miles 0-13 in the St. Johns River, both Class III Waters, from Bar Cut 3 Station 0+00 to Cut 45 Station 28+18.43 (Exhibit 1), in Duval County, in the following Sections, Townships and Ranges:

Sections	Township	Range
22, 23, 25, 26	01 S	27 E
26, 27, 29, 30, 35, 36, 43, 44, 47, 49	01 S	28 E
28, 29, 30, 31	01 S	29 E

Authorized activities from Bar Cut 3 (approximately river mile 1) to Cut 41 (approximately river mile 8) are located within the Timucuan National Ecological and Historic Preserve, an Outstanding Florida Waterbody (OFW) (Exhibit 2). Authorized activities from Bar Cut 3 Station 0+00 in the Atlantic Ocean to Cut 8 (between river miles 3 and 4) are located adjacent to the southern boundary of the Nassau River – St. Johns River Marshes Aquatic Preserve, an OFW (Exhibit 3). The center of the Jacksonville Harbor Ocean Dredged Material Disposal Site (ODMDS) is located approximately 4.4 miles southeast of the waterward tip of the St. Johns River entrance channel south jetty, outside of state waters.

PROJECT DESCRIPTION

The Permittee is authorized to deepen the federal navigation channel to the following specifications:

Location*	**Project Depth + Required Overdepth + Allowable Overdepth****
Bar Cut 3 Station 0+00 to Bar Cut 3 Station 210+00	49 feet + 1 foot + 1 foot = **51 foot max**
Bar Cut 3 Station 210+00 to Cut 45 Station 28+18.43 and Blount Island Turning Basin (north side)	47 feet + 1 foot + 1 foot = **49 foot max**
Advanced Maintenance Zones Location*	**Project Depth + Advanced Maintenance Depth + Required Overdepth + Allowable Overdepth****
Bar Cut 3 Station 217+00 to Bar Cut 3 Station 270+00	47 feet + 2 feet + 1 foot + 1 foot = **51 foot max**
Bar Cut 3 Station 270+00 to Cut 6 Station 24+72.08 (south half of channel)	
Cut 41 Station 12+30 to Cut 41 Station 28+10 (north side of channel including widened area)	
Cut 42 Station 20+00 to Cut 42 Station 135+00	
Blount Island Turning Basin (south side)	
Brills Cut Turning Basin	

*Reference from U.S. Army Corps of Engineers (Corps) plans
**Referenced to mean lower low water (MLLW)

The Permittee is also authorized to widen the following portions of the federal navigation channel and create two new turning basins:

- Widen 200 feet to the north from Cut 8 Station 0+87.32 to Cuts 14/15 Station 6+04.61
- Widen 100 feet to the south from Cut 12 Station 4+96.23 to Cut 16 Station 5+00 transitioning to 250 feet from Cut 17 Station 0+00 to Cut 17 Station 10+92.08 and back to 100 feet from Cut 18 Station 5+00 to Cut 39 Station 5+00
- Widen both sides of the channel in varying amounts up to 300 feet from Cut 39 Station 24+52 to Cut 42 Station 30+00
- Blount Island Turning Basin: approximately 2700 feet long by 1500 feet wide in Cut 42
- Brills Cut Turning Basin: approximately 2500 feet long by 1500 feet wide in Cut 45

All dredged material (approximately 18 million cubic yards) will be placed in the ODMDS. The use of confined underwater blasting of consolidated sediments and underlying rock may be required as a pre-treatment technique. Authorized activities are depicted on the attached exhibits. It is expected that the dredging activities authorized under this permit will be performed in phases and that each phase will be performed pursuant to separate contracts.

AUTHORIZATIONS
Jacksonville Harbor Federal Channel Expansion

Environmental Resource Permit
The Department of Environmental Protection (Department) has determined that the construction activities qualify for an Environmental Resource Permit (ERP). Therefore, the ERP is hereby granted, pursuant to Part IV of Chapter 373, Florida Statutes (F.S.), and Chapter 62-330, Florida Administrative Code (F.A.C.).

Sovereignty Submerged Lands Authorization
The Department acknowledges that the federal channel expansion project falls within one of the federal powers listed in the Submerged Lands Act under 43 United States Code (U.S.C.) § 1311(d) or § 1314, and, under those provisions, the Corps needs no authorization from the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees) to utilize sovereignty submerged lands for those activities. However, under the provisions of the Coastal Zone Management Act (16 U.S.C. §§ 1451-1465), these activities require Florida's concurrence with a determination of consistency with the sovereignty submerged lands provisions of Florida's approved Coastal Management Program prior to federal approval of the proposed activities. The Department has determined that the activities are consistent with the sovereignty submerged lands provisions of Florida's approved Coastal Management Program.

Coastal Zone Management
Issuance of this authorization also constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act.

Water Quality Certification
Granting the associated variance to the antidegradation provisions in Rules 62-4.242(2)(a)2.b. and 62-302.700(1), F.A.C., authorizes the Permittee to exceed state water quality standards for turbidity within the OFW, as established in the variance. Therefore, the Department hereby waives water quality certification for antidegradation provisions as they relate to turbidity in OFW, pursuant to Section 401 of the Clean Water Act, 33 U.S.C. § 1341. The Department is granting water quality certification for all other activities occurring outside of OFW.

Other Authorizations
You are advised that authorizations or permits for these activities may be required by other federal, state, regional, or local entities including but not limited to local governments or municipalities. This permit does not relieve you from the requirements to obtain all other required permits or authorizations.

The activities described above may be conducted only in accordance with the terms, conditions and attachments / exhibits contained in this document and applicable Department statutes and rules. Issuance and granting of the permit and authorizations herein do not infer, guarantee, or imply that future permits, authorizations, or modifications will be granted by the Department.

Local Sponsor Agreement
The Department has entered into a contractual agreement (Exhibit 4) with the local project sponsor, the Jacksonville Port Authority (Jaxport), under which Jaxport will be responsible for conducting post-construction water quality and biological monitoring, starting one year after the completion of all construction contracts for 9 years. Under this agreement, Jaxport shall also be responsible for compensatory mitigation that may be required by the Department pursuant to the Corrective Action Plan (Specific Condition 35(d)). The agreement is enforceable against Jaxport independently of this permit.

PERMIT CONDITIONS

The activities described above must be conducted in accordance with:

- **The Specific Conditions**
- **The General Conditions**
- **The limits, conditions and locations of work shown in the attached drawings**
- **The term limits of this authorization**
- **Department statutes and rules**

You are advised to read and understand these permit conditions prior to beginning the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings herein. Permittee shall require each contractor that it utilizes to perform work under this Permit to read and understand these permit conditions prior to beginning any activity authorized by this permit. Failure to comply with these conditions shall be grounds for the Department to suspend or revoke the permit and to take appropriate enforcement action.

SPECIFIC CONDITIONS – ADMINISTRATIVE

1. Submittals required herein for compliance (i.e., progress reports, water-quality and biological monitoring reports) shall be submitted electronically (via e-mail or through a file transfer site) when practicable, and shall include the Permittee's name and permit number (0129277-017-BI). Email submittals shall be sent to the Joint Coastal Permit (JCP) Compliance Officer at JCPCompliance@dep.state.fl.us with a subject line of: "Compliance: permit number 0129277-017-BI." A link shall be e-mailed to the JCP Compliance Officer if a file transfer site is used. If data are too large to be submitted via e-mail or through a file transfer site, the Permittee may submit the data via a hard drive, provided by the permittee. The hard drive shall be mailed to:

   Department of Environmental Protection
   Division of Water Resource Management
   Attn: JCP Compliance Officer
   2600 Blair Stone Road, Mail Station 3566
   Tallahassee, FL 32399-2400

2. Progress reports for the project (i.e., activities authorized by the permit) shall be submitted to the JCP Compliance Officer on March 1st of each year following the commencement of construction (i.e., initiation of any activities authorized by the permit) and shall continue to be submitted annually until construction of the project is completed (i.e., all activities authorized by this permit have been completed). Progress reports shall be submitted to the JCP Compliance Officer, even if there is no ongoing construction. Reports shall include the following:

    a. Brief description and extent of the work completed since the permit was issued or since the previous report. Indicate on the drawings those areas where work has been completed.

    b. Brief description and extent of the work anticipated in the next 12 months. Indicate on the drawings those areas where it is anticipated that work will be performed and / or completed in the next 12 months.

SPECIFIC CONDITIONS - PRIOR TO CONSTRUCTION

3. The Permittee shall not begin construction and no elevation of turbidity or extended mixing zone is authorized within the boundaries of the Timucuan National Ecological and Historic Preserve or the Nassau River – St. Johns River Marshes Aquatic Preserve until the Department issues a Final Order of Variance (File No. 0129277-018-BV) from Rule 62-4.244(5)(c), F.A.C., to establish a temporary mixing zone of 600 meters, and from Rules 62-4.242(2)(a)2.b. and 62-302.700(1), F.A.C., to establish a maximum allowable turbidity level of 6 Nephelometric Turbidity Units (NTUs) above background within these OFWs during construction.

4. At least 30 days prior to commencement of any construction authorized by this permit, the Permittee shall submit the following items to the JCP Compliance Officer.

    a. Turbidity Monitors: The names, credentials (demonstrating experience and qualifications) and contact information for the individuals who will conduct the turbidity monitoring. The turbidity monitors shall have prior experience in turbidity monitoring for major dredging projects.

    b. Biological Monitors: The names, credentials (demonstrating experience and qualifications) and contact information for the individuals who will conduct the biological monitoring. If additional monitoring team(s) are subcontracted, or new staff are added to the monitoring team, proposed changes and qualifications shall be submitted to the JCP Compliance Officer for review at least 30 days prior to a monitoring event. The Permittee's selected biological monitoring firm is fully responsible for training of new staff members, Permittee's contractors and subcontractors, as well as the Quality Assurance and Quality Control (QA/QC) verification of their work.

c. ODMDS Authorization: A copy of the United States Environmental Protection Agency (EPA) authorization for the Permittee's use of the Jacksonville Harbor ODMDS.

d. Environmental Protection Plan: A copy of the Permittee's Environmental Protection Plan (EPP), or equivalent, which provides project-specific details for monitoring fish and wildlife during construction, as well as steps that will be followed to address any unavoidable Take (Note: "take" is defined here in accordance with F.S. 379.2431 and U.S. Code Title 16, Chapter 35, §1532, (19) of the Endangered Species Act) that may occur. The names, credentials (demonstrating experience and qualifications) and contact information for all dedicated protected marine species observers shall also be included in the EPP.

e. Corrective Action Plan: Corrective Action Plan (CAP) as required in Specific Condition 35 below.

f. Linear Transfer Function Report: A report describing the linear transfer function that shall be used for the third tier of the First-Level Analysis pursuant to Specific Condition 35(a). All components and/or variables included in the linear transfer function shall be clearly defined. The report shall provide a detailed explanation of the process that was used to develop the linear transfer function, including (but not limited to) all equations, data transformations, and time-lags. The report shall include analyses demonstrating that the linear transfer function for detecting a project-related increase in salinity is appropriate and effective.

   Data that were used to develop the linear transfer function shall be presented (in tabular or graphical format) in the report, and all raw data shall be made available within 45 days, if requested by the Department. The report shall contain figures that illustrate the relationship between salinity and flow, including (but not limited to) scatter plots for salinity data relative to flow rate data for each of the six monitoring stations that will be evaluated in the First-Level Analysis. The report shall contain an assessment of the strength (e.g., regression coefficient) and statistical significance of the relationship between variables (i.e., salinity and flow). Analyses of water level data shall also be presented, including (but not limited to) an analysis of natural variation and deviations from normal water levels, such as outliers in the data due to storm events.

g. Modeling Report: A report demonstrating that the model (i.e., the Combined Lower St. John's Main Stem, Tributary, Salt Marsh Hydrodynamic Model and the Hydrology Model with Tributary Scale Radar Rainfall) has been calibrated, validated, and finalized. Specifics regarding the model setup tasks are described in Exhibit 5 and made a part of this Permit.

The purpose of the Modeling Report is to ensure that the hydrodynamic model is finalized and ready to be used if required by the CAP (pursuant to Specific Condition 35 (a) and (b)). The Modeling Report shall include modeling results that predict the effect of the project on salinity using the baseline period that will be established pursuant to Specific Condition 36. The Modeling Report shall include a thorough description of all analytical procedures (including, but not limited to, software programs/packages used for modeling) with sufficient detail for an independent party with modeling expertise to replicate the procedures and verify the results. If requested by the Department, all of the files that are necessary to run the model shall be provided as soon as practicable. The Modeling Report shall provide summary statistics, figures (including, but not limited to, salinity duration curves), and statistical comparisons between the baseline condition and the with-project condition.

5. Biological Monitoring Plan: The Permittee shall submit a draft Biological Monitoring Plan (BMP) to the Department for review as soon as possible following the issuance of the permit; the Permittee shall coordinate with the Department to revise and finalize the BMP to ensure that monitoring will be adequate to document any potential impacts that may result from the activities authorized by the permit. At least 60 days prior to the initiation of field activities for the pre-construction freshwater wetlands and SAV surveys (required pursuant to Specific Condition 34(b)), the Permittee shall submit a final BMP ("Final Biological Monitoring Plan") to the JCP Compliance Officer; the BMP will be subject to review by the Department. The final BMP shall incorporate the information required in Specific Condition 34 below. The Permittee shall not initiate field activities for the pre-construction freshwater wetlands and SAV surveys until the final BMP has been coordinated with the Department, who will complete an expedited review of the BMP and provide written comments to the Permittee in a timely manner (coordination will also include a meeting, if requested by the Department).

6. Blast and Watch Plan: At least 30 days prior to any blasting activities, the Permittee shall submit a Blast and Watch Plan to the JCP Compliance Officer and to the Florida Fish and Wildlife Conservation Commission's (FWC) Imperiled Species Management Section at ImperiledSpecies@myfwc.com. The Blast and Watch Plan shall incorporate the information required in Specific Condition 19 below. Blasting shall not commence until the Blast and Watch Plan has been reviewed by FWC. The Permittee shall notify the JCP Compliance Officer that the Blast and Watch Plan has been reviewed by FWC.

7. Final Plans and Specifications: At least 30 days prior to dredging in Bar Cut 3 between Stations 0+00 and 172+00, the Permittee shall submit final dredging plans and specifications for this reach to the JCP Compliance Officer. The plans shall be consistent with the Project Description of this permit and the attached Project Drawings, and shall be accompanied by a design authentication completed by a professional engineer.

8. Pre-Construction Conference: The Permittee shall conduct a pre-construction conference prior to construction to review the Specific Conditions and monitoring requirements of this permit with the Permittee's Contractors, those responsible for turbidity monitoring, the JCP Compliance Officer (or designated alternate), and a representative from FWC (phone: (850) 922-4330, email: marineturtle@myfwc.com). The Permittee is advised to contact the JCP Compliance Officer to schedule the pre-construction conference at least 14 days prior to the construction commencement date in order to ensure that appropriate representatives are available.

   The Permittee is also advised to hold the pre-construction conference at least a week prior to the construction commencement date. At least 7 days in advance of the pre-construction conference, the Permittee shall provide notification, advising the participants of the agreed-upon date, time and location of the meeting, a meeting agenda and a teleconference number.

9. Construction Commencement Notice: At least 48 hours prior to the commencement of construction, the Permittee shall submit a completed Construction Commencement Notice form (Exhibit 6) to the JCP Compliance Officer, to the Department's Northeast District Office at DEP_NEP@dep.state.fl.us with "Attention ERP" in the subject line, and to FWC at ImperiledSpecies@myfwc.com.

SPECIFIC WILDLIFE CONDITIONS

10. **All In-water Activities.** The following requirements shall apply to all in-water activities:

    a. All on-site project personnel associated with the project shall be instructed about the presence of manatees and marine turtles, and the need to avoid collisions with (and injury to) these protected marine species. The Permittee (or its designee) shall advise all on-site personnel (including contractors) that there are civil and criminal penalties for harming, harassing, or killing manatees or marine turtles, which are protected under the Endangered Species Act, the Marine Mammal Protection Act, the Marine Turtle Protection Act and the Florida Manatee Sanctuary Act.

    b. All vessels associated with the project shall operate at "Idle Speed/No Wake" at all times while in the immediate construction area (i.e. within 500 feet of dredging activity) and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels shall follow routes of deep water whenever possible.

    c. Siltation or turbidity barriers (if used) shall be made of material in which manatees and marine turtles cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee or marine turtle movement.

d. All on-site project personnel are responsible for observing water-related activities for the presence of manatees and marine turtles. All in-water operations, including operation of vessels, shall be shut down if a manatee or marine turtle comes within 50 feet of the operation. Activities shall not resume until the animal(s) has moved beyond a 50-foot radius of the project operation, or until 30 minutes elapses if the animal(s) has not reappeared within 50 feet of the operation. Animals shall not be herded away or harassed into leaving by on-site personnel.

e. Any collision with (and / or injury to) a manatee or marine turtle shall be reported immediately to the FWC Hotline at 1-888-404-3922, and to FWC at ImperiledSpecies@myfwc.com. Any collision with (and/or injury to) a marine turtle shall also be reported immediately to the Sea Turtle Stranding and Salvage Network (STSSN) at SeaTurtleStranding@myfwc.com.

f. Temporary signs concerning precautions relating to manatees shall be posted prior to and during all in-water project activities. All signs shall be removed by the Permittee upon completion of the project (i.e., after completion of each contract if no construction is on-going and following the completion of the final construction contract). Temporary signs that have already been approved for this use by FWC shall be used. One sign that reads *Caution Boaters: Watch for Manatees* shall be posted and a second sign (measuring at least 8 ½" by 11"), which explains the requirements for "Idle Speed/No Wake" and the shutdown of in-water operations, shall be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at http://myfwc.com/manatee. Questions concerning these signs can be sent to ImperiledSpecies@myfwc.com.

11. To reduce the potential of crushing manatees between vessels, mooring fenders that provide a three to four-foot standoff distance under maximum compression shall be used between barges, or between a barge and tugboat.

12. **Clamshell or other Mechanical Dredging.** If a clamshell or other mechanical dredge is used for this project, the following requirements shall be met:

a. **Observers.** A dedicated observer shall be present (i.e., on-site) when in-water work is being performed using a clamshell or other mechanical dredge. The observer shall perform no other duties that may interfere with their ability to observe for protected marine species (such as manatees, marine turtles, dolphins, whales) during dredging activities.

i. The observer shall have significant prior on-the-job experience observing for protected marine species (including manatees if observing inshore, or whales if observing offshore) during previous dredging events where the activities were similar in nature to this project. The observer shall be equipped with a marine

radio, and shall use binoculars and polarized sunglasses to aid in observation during the daytime. A dedicated observer shall be on site during all dredging activities and shall advise the Permittee to instruct the Contractor to cease operation upon sighting a protected marine species within 50 feet of any in-water construction activity.

ii. If the observer determines that detection of protected marine species is not possible (such as during fog, rain, wind, etc.), then the observer shall advise the Permittee to instruct the Contractor to cease in-water work operations until weather conditions improve and detection is again possible. The Permittee shall instruct the Contractor to immediately notify the Permittee, who will have the authority to cease and reinitiate in-water operations, if an observer advises that in-water work should cease.

iii. A list of the observers specific to the dredging activities associated with this permit, their contact information and their qualifications, shall be included in the EPP. As required in Specific Condition 4 (above), the EPP shall be provided to FWC at ImperiledSpecies@myfwc.com for review at least 30 days prior to commencement of construction. Any further modifications to the EPP related to observers shall be coordinated with FWC. The Permittee must notify FWC at the initiation and completion of each phase of dredging (contract), at the email address above.

b. In order to better observe manatees and marine turtles during nighttime clamshell or mechanical dredge operations, shielded lights shall be used to illuminate the water surface for 75 feet around the hoist line (cable attached to bucket) or mechanical dredge arm. Lighting shall be sufficient to avoid the lethal take of manatees and marine turtles from dredging activities while ensuring that the lights are not visible from marine turtle nesting beaches from May 1 through November 30.

c. During clamshell operations, the clamshell bucket shall be gravity-released at the water's surface, and only after confirmation that there are no manatees or marine turtles within a 50-foot safety distance during daytime operations and a 75-foot safety distance during nighttime operations. The observer shall notify the Contractor if manatees or marine turtles enter within the designated safety distance.

d. During the months of April through November, two observers who have experience in manatee observation during nighttime dredging activity shall be used when nighttime clamshell/mechanical dredging is conducted. The distance at which the nighttime clamshell/mechanical operation shall cease when a manatee is present shall be expanded to 75 feet of any in-water construction activity. Lighting of this expanded area shall be 75 feet from the dragline or dredge arm during bucket entry and exit from the water.

13. **Hopper Dredging.** If a hopper dredge is used for this project, the following requirements shall be met:

    a. Handling of any marine turtles captured during hopper dredging shall be conducted only by persons with prior experience and training in these activities, such as a National Marine Fisheries Service (NMFS)-approved marine turtle observer, or by persons who have submitted documentation to the Corps of meeting the FWC Marine Turtle Conservation Guidelines specific to stranding activities. The Corps shall forward documentation of these qualifications to FWC for review, concurrently with the submission of the EPP. Corps staff or their designee who transport live or dead marine turtles or marine turtle parts into, out of, or within, the state of Florida shall notify FWC in writing specifying the number, species of turtle, type of specimen, and the destination after transport is complete. Before transport, if the turtle is believed to be alive, Corps staff or their designee shall coordinate with FWC at SeaTurtleStranding@myfwc.com to determine the appropriate facility to receive live marine turtles for rehabilitation. Corps staff or their designee shall abide by the State of Florida's FWC Marine Turtle Conservation Guidelines (http://www.myfwc.com/wildlifehabitats/managed/sea-turtles/conservation-guidelines/) specific to transport of live stranded turtles.

    b. When initiating dredging, suction through the drag heads shall be allowed just long enough to prime the pumps, then the drag heads shall be placed firmly on the bottom. When lifting the drag heads from the bottom, suction through the drag heads shall be allowed just long enough to clear the lines, and then shall cease. Pumping water through the drag heads shall cease while maneuvering or during travel to/from the disposal area.

    c. A fully-functional rigid deflector draghead (to deflect marine turtles) shall be used on all hopper dredges, at all times of the year.

    d. The STSSN Coordinator shall be notified at 1-904-573-3930 of the start-up and completion of hopper dredging operations. If a marine turtle is captured or marine turtle parts are recovered, the STSSN shall be contacted at SeaTurtleStranding@myfwc.com.

14. **Trawling**. If relocation trawling or non-capture trawling for marine turtles is required by an applicable NMFS Biological Opinions and Incidental Take authorization, the following is required:

    The Permittee or their contractor shall e-mail weekly reports to the Imperiled Species Management Section at MTP@myfwc.com on Friday of each week when trawling is conducted in Florida waters. These weekly reports shall include the species and number of turtles captured in Florida waters, their general health, and release information. A summary of all trawling activity (including non-capture trawling) shall be submitted to

MTP@myfwc.com by March 1st of the following year, or at the end of each phase of the project (i.e., contract), whichever comes first. The summary shall be provided on the FWC-provided Excel spreadsheet, and shall list all turtles captured in Florida waters, the measurements of all captured turtles, the location of captures (latitude and longitude in decimal degrees), the location of tow start-stop points (latitude and longitude in decimal degrees), and times for the start-stop points of the tows (including tows when no turtles are captured).

15. **Right Whale Protection Conditions.** In order to avoid collisions between vessels and North Atlantic Right Whales (right whale), each project-related vessel operating between the eastern tip of the St. Johns River entrance and the ODMDS shall have at least one designated observer (NMFS-approved dedicated observers for hopper dredges) onboard who shall be on the lookout for right whales from November 15 to April 15.

    a. During this portion of the year, the Permittee shall provide the observers daily whale sighting reports from NMFS at nmfs.ser.rw.noaacorps@noaa.gov. These reports shall be used in order to reduce the risk of ship and right whale collisions. The request for sighting updates shall include at least one valid email address (within the text of the email) for the observer to receive these alerts.

    b. To avoid collisions with whales, at least one observer shall be designated to spot right whales, and shall use the daily updates of whale sightings from NMFS while maintaining a lookout.

    c. All personnel on all support vessels shall observe for right whales while operating within critical habitat. All dredge and support vessel operators shall be familiar with, and adhere to, the federal right whale minimum approach regulation, as defined in 50 CFR 224.103(c).

    d. The Permittee shall, during the period November 15 through April 15, require each dredge-related vessel (e.g., hopper dredges, cutterhead dredges, barges, tugboats pulling or pushing barges or scows, relocation trawlers) moving through the right whale calving area to take the following precautions: (1) vessels shall not travel at speeds in excess of 10 knots; (2) if whales have been spotted via the Early Warning System (EWS) or other observers within 15 nautical miles (nm) of the vessel's path within the previous 24 hours, the tug/barge or dredge operator shall slow down to 5 knots or less during evening hours, or when there is limited visibility due to fog, or sea states greater than sea state Beaufort 3 (limited visibility, for purposes of this Specific Condition, as any condition including fog, rain, smoke, sea spray, waves, inclement weather, etc. that reduce visibility to ½ nm (1000 yards) or less).

16. **Project Lighting.** Direct lighting of the beach and nearshore waters during the peak marine turtle nesting season (May 1 - October 31) shall be limited to the immediate construction area and shall comply with safety requirements, as described below.

Lighting on offshore or onshore equipment shall be minimized through reduction, shielding, lowering and appropriate placement to avoid excessive illumination of the water's surface and nesting beach, while meeting all Coast Guard, the latest version of Corps EM 385-1-1 (http://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM_385-1-1.pdf) and applicable OSHA/USCG regulations, specifically 07.A.04 Marine lighting shall be in accordance with American National Standards Institute/ Illuminating Engineering Society of North America (ANSI/IESNA) RP-12. All lights shall be placed and positioned to minimize illumination of marine turtle nesting beaches. Light intensity of lighting equipment shall be reduced to the minimum standard required by OSHA for General Construction areas, in order to avoid misdirecting marine turtles. Shields shall be affixed to the light housing and shall be large enough to block light from all lamps from being transmitted outside the construction area (see Figure 1 below).

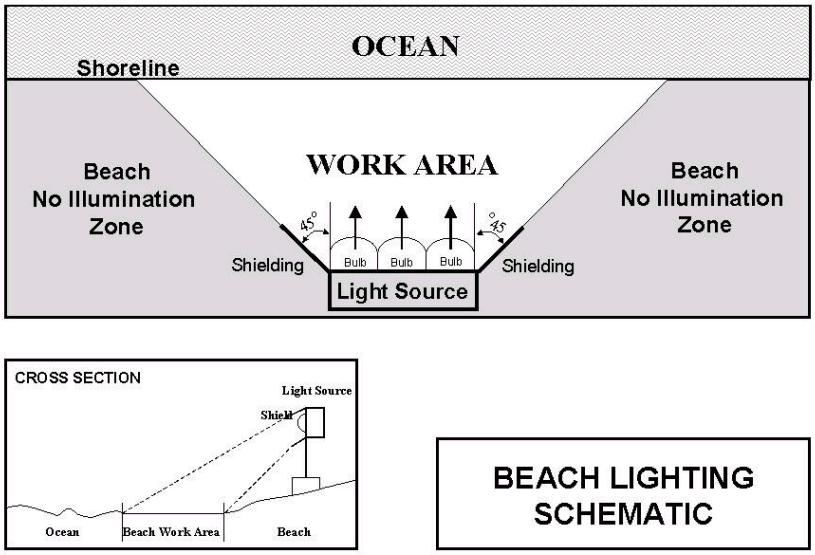

Figure 1: Beach lighting schematic showing light source position relative to work area.

Confined Blasting Activities

17. Blasting shall be confined to the 1st of December through the last day of February (28th or 29th).

18. A Blast and Watch Plan (Plan) shall be developed and submitted to the JCP Compliance Officer and FWC for review at least 30 days prior to the initial blasting activity, as required by Specific Condition 6 (above). The Plan shall specify protection measures for protected marine species (such as manatees, marine turtles, dolphins, whales, etc.) that will be employed, before, during and after each blast. The Plan shall include all information needed for the site-specific blasting activities that are proposed at this location, including the information listed in Specific Condition 19 (below), and shall be followed during all blasting events. Any further modifications to this Plan shall be coordinated with FWC prior to implementation. The JCP Compliance Officer and FWC (ImperiledSpecies@myfwc.com) shall be notified at the initiation and completion of all in-water blasting events.

19. The following information, which is specific to the project's blasting activities, shall be incorporated into the Plan:

    a. Blasting information: The amount of explosive charge proposed; the explosive charge's equivalency in TNT; how it will be executed (depth of drilling, stemming, amount of time between delays, etc.); a drawing depicting the placement of the charges, size of the safety radius and how it will be marked (also depicted on a map); tide tables for the blasting event(s); and estimates of times and days for blasting events (with an understanding this is an estimate, and may change due to weather, equipment, etc).

       For each explosive charge placed, three zones will be calculated, denoted on monitoring reports and provided to observers before each blast for incorporation into the Plan for each planned detonation. These zones shall be as follows:

       i. Danger Zone: The distance in feet from blast (radius) which is equal to the maximum Level A take (i.e. mortality or injury) distances described in the NMFS Incidental Harassment Authorization (IHA).

       ii. Exclusion Zone: A zone which is the Danger Zone + 500 feet (152.4 m). Detonation will not occur if a protected marine animal is known to be (or based on previous sightings, may be) within the Exclusion Zone

       iii. Safety Zone: A zone which is twice the radius of the Exclusion Zone. Any protected marine animal within this circular area around the Exclusion Zone shall be monitored continuously.

       iv. Watch Zone: A zone which is three times the radius of the Exclusion Zone. This is the minimum watch distance to ensure that protected animals entering or traveling close to the Safety Zone are spotted and appropriate actions can be implemented before or as the animal enters each successive zone.

b. Watch Program:

i. A list of the observers and their contact information, their qualifications, and positions for the watch, including a map depicting the proposed locations for boat or land-based observers shall be included in the Plan. Qualified observers shall have significant prior on-the-job experience observing for protected marine species (including manatees, marine turtles, dolphins, whales, etc.) during previous in-water blasting events where the blasting activities were similar in nature to this project. Each observer's past experience shall 1) include training and specific experience during blasting projects in the position they are filling (i.e. aerial observer, small boat observer, master observer, etc.); 2) include experience working as part of an observation team during an in-water blasting project; and 3) have extensive manatee or marine turtle observation experience during previous dredging or blasting projects and/or during manatee or marine turtle research studies.

ii. A formal coordination meeting shall be held at least two days prior to the first blast event of the initial phase of construction (contract); the Department, FWC and Permittee shall determine if formal coordination meetings are necessary for the first blasting event of subsequent contracts. Attendees shall include the observers in the watch program, Permittee's construction contractors, demolition (blasting) subcontractors, FWC, the JCP Compliance Officer, and other interested parties such as the United States Coast Guard (USCG), Florida Department of Transportation (FDOT), and the U.S. Fish and Wildlife Service (FWS). Permittee's contractors, demolition subcontractors and observers shall present the protocol and logistics of the project at the meeting.

iii. The watch program shall consist of a minimum of six observers and one coordinator. There shall be a minimum of one aerial survey observer, with the other observers elevated in positions on boats or on land, depending upon the specific project setting. Each observer shall be equipped with a two-way and marine radio, which shall be dedicated exclusively to the watch. Extra radios, with fully-charged batteries, shall be available in case of failures. All observers shall be in close communication with the demolition (blasting) subcontractor in order to halt the blast event if the need arises. If all observers do not have working radios and cannot contact the primary observer and the blasting subcontractor during the pre-blast watch, the blast shall be postponed until all observers are in radio contact. Observers shall also be equipped with polarized sunglasses, binoculars, a red flag for backup visual communication, and a sighting log, with a map to record sightings. All blasting events shall be weather dependent. Climatic conditions shall be suitable for adequate viewing conditions, as determined by the observers.

iv. No blasting shall occur without aerial surveys conducted in-compliance with the conditions in this permit. The watch program shall include a continuous aerial survey to be conducted by aircraft, as approved by the FAA. The event shall be halted if an animal of a protected species is spotted within the Exclusion Zone. An "all-clear" signal must be obtained from the aerial observer before detonation can occur. The blasting event shall be halted immediately per the notification procedure listed below. If a protected species is sighted in the Exclusion Zone, the blast event shall not take place until the animal(s) moves out of the area under its own volition. These animals shall not be herded away or harassed into leaving. Specifically, these animals shall not be intentionally approached by project watercraft. If the animal(s) is not sighted a second time, the event may resume 30 minutes after the last sighting.

v. The watch program shall begin at least one hour prior to the scheduled start of blasting in order to identify the possible presence of manatees, dolphins, marine turtles or whales. The watch program shall continue until at least 30 minutes after detonations are complete.

vi. If any one of the blast or watch conditions is not met prior to or during the blasting, the watch observers shall immediately notify the Permittee (verbally and / or via email). The Permittee shall immediately instruct the Contractor to terminate the blasting event and notify the Department and FWC, if any one of the blast or watch conditions is not met prior to or during the blasting.

20. **Reporting.** If an injured or dead marine mammal or marine turtle is discovered in the vicinity of the project location while mobilized, the following shall occur:

a. The Permittee shall direct the Contractor to cease all work.

b. The Permittee shall immediately notify the following agencies:
- FWC Wildlife Alert Hotline: 1-888-404-3922 and ImperiledSpecies@myfwc.com (manatees, marine turtles and whales)
- NMFS Emergency Stranding Hotline: 1-877-433-8299 (marine turtles, whales and dolphins)
- STSSN: SeaTurtleStranding@myfwc.com
- JCP Compliance Officer: JCPCompliance@dep.state.fl.us

c. The Permittee shall maintain contact with the injured or dead animal to the greatest extent practicable until authorities (i.e., FWC and / or NMFS) arrive.

d. In the case of a marine turtle take, work may resume while the submitted details and other reports (such as internal FWC rescue or necropsy reports) are assessed by

FWC. In the case of a marine mammal take, the Permittee in coordination with the agencies (i.e., FWC, NMFS, and DEP) will determine when work may resume.

e. Details of the incident shall be sent as soon as possible after providing notice pursuant to Specific Condition 20(b) (above) to FWC at ImperiledSpecies@myfwc.com. Information shall include, but not be limited to: a narrative of the incident, photographs/videos of the incident and surrounding environment (if possible), a GPS point where the animal was discovered, names, titles and contact numbers of all personnel onsite at the time of the incident, and the name, title and contact number for the Corps Contracting Officer. Additional information may be requested by FWC and telephone interviews may be required.

f. Once the circumstances have been reviewed, FWC will provide their written determination to the Permittee/Contractor on how to proceed: whether operations can proceed normally; whether modifications to the protective measures are required in order to proceed; or if operations need to cease temporarily due to the need for further investigation. If modifications to the protective measures are required, construction shall not resume until the Corps, FWC, NMFS, FWS and the Department agree to the changes. The Department will determine if a permit modification is required if substantial modifications to protective measures are requested.

21. For activities related to dredging and blasting, all observers shall maintain a daily log that details sightings, collisions, or injuries to protected marine animals. The logs shall also include the following information: work itinerary; weather; work shutdown times; observer shift changes; duration of sightings; estimated distance of animal from the dredge/equipment/vessel; animal behavior during the sighting; and actions taken as a result of sightings, collisions or injuries.

22. A report ("Annual Dredging and Blasting Summary Report") summarizing the dredging and blasting observation logs, along with the daily observation logs, shall be submitted to FWC at ImperiledSpecies@myfwc.com annually, by March 1st of each year. A final report ("Final Dredging and Blasting Summary Report") shall also be submitted to FWC at ImperiledSpecies@myfwc.com no later than 30 days following the completion of construction (i.e., competition of final contract), which is defined as the end of equipment demobilization. The observation logs and the Final Dredging and Blasting Summary Report shall cover the time period between the beginning of equipment mobilization and the end of equipment demobilization, and shall include the location and name of project, and the dates and times of work.

SPECIFIC CONDITIONS – MONITORING/REPORTING REQUIREMENTS

Turbidity Monitoring

23. Turbidity monitoring for this project shall be conducted by individuals with prior experience in turbidity monitoring for major dredging projects. Turbidity monitoring shall be measured according to the following protocols:

a. **Location**:

i. Background: Samples shall be collected at the surface and mid-depth, at least 300 meters up-current from the source of turbidity at the dredge and scow loading sites, and clearly outside the influence of any artificially-generated turbidity plume or the influence of an outgoing inlet plume.

ii. Compliance (outside OFW): Samples shall be collected at the surface and mid-depth no more than 150 meters downcurrent from the source of turbidity at the dredge and scow loading sites, within the densest portion of any visible turbidity plume. If no plume is visible, follow the likely direction of flow.

iii. Compliance (inside OFW): Samples shall be collected at the surface and mid-depth no more than 600 meters downcurrent from the source of turbidity at the dredge and scow loading sites, within the densest portion of any visible turbidity plume. If no plume is visible, follow the likely direction of flow.

b. **Frequency:**
Background and Compliance: Samples shall be collected two times per day, at least four hours apart during daylight hours only, and at any other time that there is a likelihood of an exceedance of the turbidity standard, during all dredging operations, including but not limited to the loading of scows and transit to the ODMDS. Sampling shall be conducted while the highest project-related turbidity levels are crossing the edge of the mixing zone. Since turbidity levels can be related to pumping rates, the dredge pumping rates shall be recorded. In the event of a turbidity exceedance, pumping rates within the timeframe of the exceedance (the time since the last in-compliance sample was collected) shall be provided to the Department within 72 hours of any request. The compliance samples and the corresponding background samples shall be collected at approximately the same time, i.e., one shall immediately follow the other.

c. **Unanticipated Discharge:**
The mixing zone only applies at the dredge site during the time of dredging and scow loading. If any project-associated turbidity discharge is observed at any location other than the authorized mixing zone at the dredging and scow loading site(s) (e.g., pipeline or scow leakage), then turbidity shall be monitored as close to the source as possible, in the densest portion of the turbidity plume, until turbidity levels meet the

state standard, or until otherwise directed by the Department. When this type of unanticipated discharge causes a turbidity exceedance, as compared to a corresponding Background site at least 300 meters upcurrent of the discharge and outside any obvious plume, the Permittee shall adhere to the turbidity compliance actions outlined in Specific Condition No. 24 below.

Water and excavated material shall not excessively overflow, leak out, or spill out of barges, dump scows, or hopper dredges while in route to the ODMDS. Excessive leakage shall be defined by the Environmental Protection Agency (EPA), in coordination with the Permittee, pursuant to Section 103 of the Marine Protection and Research Sanctuaries Act. If excessive leakage occurs, the leak shall be repaired or the method of operation shall be changed prior to continuing operation of the equipment for this project.

d. **Turbidity Standard:**
Turbidity levels at the edge of the approved mixing zone outside of the OFW shall not exceed the turbidity standard of 29 NTUs above the turbidity level measured at the background location. For turbidity plumes extending into the OFWs (i.e., Timucuan National Ecological and Historic Preserve and the Nassau River – St. Johns River Marshes Aquatic Preserve), project activities shall not elevate turbidity more than 6 NTUs above background at (or beyond) the edge of the 600-meter mixing zone, according to the terms of Variance No. 0129277-018-BV.

e. **Calibration:**
The instruments used to measure turbidity shall be fully calibrated with primary standards within one month of commencement of dredging operations, and at least once a month throughout the project (for the duration of construction). Calibration with secondary standards shall be verified each morning prior to use, after each time the instrument is turned on, and after field sampling using two secondary turbidity "standards" that bracket the anticipated turbidity samples. If the post-sampling calibration value deviates more than 8% from the previous calibration value, results shall be reported as estimated and a description of the problem shall be included in the field notes.

Analysis of turbidity samples shall be performed in compliance with DEP-SOP-001/01 FT 1600 Field Measurement of Turbidity located at the following link: http://publicfiles.dep.state.fl.us/dear/sas/sopdoc/2008sops/ft1600.pdf

f. **Duration of Work within or adjacent to OFWs:**
Turbidity mixing zones associated with dredging activities or scow loading that extend into an OFW are authorized for the duration of construction, which is expected to be 2920 days, pursuant to Rule 62-4.242(2)(a)2.b., F.A.C. Any requests to further extend this time period shall be made to the Department in writing.

Approval of extended time may be granted without modification to this Permit, but must be done so in writing.

24. The following measures shall be taken whenever turbidity levels exceed the standards stated above (Specific Condition 23(d)):

a. Immediately cease all dredge or discharge operations that may be contributing to the turbidity exceedance. Cessation of dredging or discharge operations shall continue until monitoring indicates that turbidity levels are meeting the Standard;

b. Notify the JCP Compliance Officer, at JCPCompliance@dep.state.fl.us, within 24 hours of the time the exceedance is first detected. The subject line shall include the phrase **"Turbidity Exceedance."** The exceedance report shall include the project name (Jacksonville Harbor Federal Channel Expansion), the permit number (0129277-017-BI), the location (GPS coordinates), the turbidity values (background, compliance and the difference) of the exceedance, the time and date that the exceedance occurred, the time and date that construction ceased, and a description of the corrective actions taken or proposed to be taken;

c. Modify the work procedures that were responsible for the exceedance such as reducing the dredge rate and/or installing or performing additional best management practices or repairing any non-functioning turbidity containment devices;

d. Dredging shall not resume until two (2) monitoring events conducted at least one hour apart confirm that turbidity readings are in compliance with the Standard (set forth in Specific Condition 23(d)), and

e. Prior to re-commencing construction, the Permittee shall provide the JCP Compliance Officer with a report via email with the information required in Specific Condition 24(b) and the following information: turbidity monitoring data collected during the shutdown documenting the decline in turbidity levels and achievement of acceptable levels (as required by Specific Condition 24(d)), corrective measures that were taken (as required by Specific Condition 24(c)), and the cause of the exceedance; The Permittee shall also provide a copy of all monitoring data sheets to the JCP Compliance Officer within 24 hours of the time when any suspended dredge or discharge operations resume (email acceptable). The Permittee shall email the JCP Compliance Office to specify the time and date that construction re-commenced.

25. **Turbidity Reports:** Throughout the duration of construction, turbidity monitoring data shall be submitted on a weekly basis (each Wednesday) and shall contain all data collected during the previous week of construction. The data shall be presented in tabular format, indicating the measured turbidity levels at the compliance sites for each depth, the corresponding background levels at each depth and the number of NTUs above background at each depth. Any exceedances of the turbidity standard shall be

highlighted in the table. In addition to the raw and processed data, the reports shall also contain the following information:

a. Time of day samples were taken;

b. Dates of sampling and analysis;

c. GPS location of sample;

d. Depth of water body;

e. Depth of each sample;

f. Antecedent weather conditions, including wind direction and velocity;

g. Tidal stage and direction of flow;

h. Water temperature;

i. A map, overlaid on an aerial photograph, indicating the sampling locations, dredging and discharge locations, direction of flow, and GPS coordinates for all vessels operating during the monitoring period.

j. A statement describing the methods used in collection, handling, storage and analysis of the samples; and

k. A statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection, calibration of the meter, accuracy of the data and precision of the GPS measurements.

When samples cannot be collected, include an explanation in the report. If unable to collect samples due to severe weather conditions, include a copy of a current weather report from a reliable, independent source, such as an online weather service.

Salinity and Water Flow Monitoring

26. **Monitoring Station Locations.** Water height data will be collected by the previously established and currently operational National Ocean Service gauge; if for any reason this gauge ceases to provide water height data during the monitoring period, then the Permittee shall immediately notify the Department and shall be responsible for the collection of water height data for the remainder of the monitoring period (the permit-required duration of monitoring is described in Specific Condition 27 below).

Salinity and/or water flow shall be monitored at all of the stations shown in Exhibit 7 and listed in Exhibit 8 (attached). These locations include:

a. 14 stations in the St. Johns River: Acosta Bridge, Marco Lake, Christopher Point, Dames Point Bridge (USGS), Buckman Bridge, Dancy Point, Buffalo Bluff, Astor, Mayport, Dames Point (PORTS), Jacksonville University, I-295 Bridge, Red Bay Point, and Racy Point. Water flow rate data shall be collected from at least three main stem monitoring stations, including Acosta Bridge, Astor and Buffalo Bluff. Data from these three monitoring stations shall be used to evaluate salinity in the context of flow rate for the other main stem monitoring stations without flow gauges.

b. 14 stations in the St. Johns River tributaries: Clapboard Creek, Dunn Creek, Trout River, Broward River, Cedar River, Ortega River, Pottsburg Creek, Julington Creek, and Durbin Creek. Note: water flow rate data shall be collected at all nine of the tributaries monitoring stations listed above; separate gauges may be used to collect data on salinity and flow rate for these tributary stations.

27. **Monitoring timeline, frequency, duration.** All monitoring stations shown in Exhibit 7 and listed in Exhibit 8 shall continuously (at least once an hour) collect salinity and / or water flow readings for at least 6 months prior to the commencement of dredging to establish a pre-construction baseline dataset. The Permittee shall conduct monitoring continuously throughout the duration of dredging and for 1 year after the last construction contract has been completed. JaxPort shall fulfill the monitoring and reporting requirements for an additional 9 years as set forth in the Local Sponsor Agreement with the Department. Salinity and water flow data are required to be collected even if there is no active dredging between construction phases (e.g., between contracts).

28. **Measurements.** Salinity shall be measured at each station with instrumentation of sufficient accuracy to detect potential project-related shifts. Instruments reporting salinity in parts per thousand shall be accurate to at least the first decimal place; conductivity measurements shall have at least this degree of accuracy.

29. **Submittal of raw data and reporting.** All raw salinity and water flow data shall be made available to the Department upon request. If requested by the Department, the Permittee shall provide the Department with the raw data within 45 days of any request. If requested by the Department, and the raw data files are too large to email, the data shall be made available either via a hard drive (hard drive provided by the Permittee) or shall be placed by the Permittee on a file transfer site that is accessible by the Department.

30. The Permittee shall keep all raw data that are collected throughout the duration of the monitoring period, as specified in Specific Condition 27 (above), and for at least 3 years after monitoring has been discontinued.

31. The salinity and water flow data for all monitoring stations shall be provided on a public website and updated on a near-real time basis during the monitoring period, as specified in Specific Condition 27 (above). If for any reason salinity and water flow data cannot be made accessible via a public website, then data shall be made available to the Department within 45 days of the request.

32. **Repair of non-functioning monitoring station.** All monitoring stations shall be maintained and calibrated regularly. If the Permittee discovers that a monitoring station is not properly functioning (i.e., not correctly reporting water level, salinity or water flow information), the Permittee shall notify the JCP Compliance Officer within 24 hours of discovery of the problem. The Permittee shall fix (or coordinate with the owning entity to fix) the non-functioning station as soon as possible, but no more than 60 days from the date of the last data collection. The Permittee shall notify the JCP Compliance Officer within 24 hours of repair of the non-functioning station.

33. **Establishment of new station to replace non-functioning station.** If a new station needs to be installed in order to replace a non-functioning station, the Permittee shall make every effort to install the new station in the same location as the station it is replacing. If this is not possible, justification shall be provided to the JCP Compliance Officer within 30 days of discovery of the non-functioning station, explaining why the new station cannot be installed in the same exact location as the station it is replacing. The justification shall include a map with GPS coordinates of the prospective new station location. To the greatest extent practicable, the new station shall be located within 500 meters of the old station, in a setting with similar site conditions (i.e., area with approximately the same water depth and same water flow rate). The new station shall be installed within 90 days of discovery of the non-functioning station that it is replacing. The Permittee shall notify the JCP Compliance Officer within 24 hours of the completion of installation of the new station. The Department will determine if a permit modification will be required if the new monitoring station will be located more than 500 meters from the old station that it is replacing or if the Department determines that the new station is located in an area that is dissimilar to the original station (e.g., with respect to water flow rate or depth). The Department may reject a station proposed by the Permittee, if that station differs from the original station to such an extent that comparisons between data collected at the proposed station with data collected at the original station may be compromised.

Biological Monitoring

34. The Permittee shall perform biological monitoring to identify potential adverse secondary impacts to freshwater wetlands and to submerged aquatic vegetation (SAV), including but not limited to eelgrass (*Vallisneria americana*), that may occur as a result of increased salinity stress from the dredging authorized in this permit.

The following shall be incorporated into the Final Biological Monitoring Plan that shall be submitted to (and coordinated with) the Department prior to the initiation of field activities for pre-construction surveys (pursuant to Specific Condition 5 above) for freshwater wetlands and SAV monitoring:

a. **Monitoring stations**
Freshwater wetland monitoring stations shall be established at each of the following locations: Ortega River, Pottsburg Creek, Julington Creek, Black Creek, and Six Mile Creek. All freshwater wetland monitoring stations shall be established immediately adjacent to tidal channels in forested (i.e., mixed hardwood) wetlands.

SAV monitoring stations shall be established at permanent monitoring stations that were previously established by the St. Johns River Water Management District (SJRWMD), which are located at Bolles High School, Buckman Bridge, Moccasin Slough, Orangedale and Scratch Ankle, and at the SJRWMD ground truthing sites named GT002 and GT006, located at approximately river miles 26.5 and 28, respectively.

The BMP shall include a map that clearly shows the location of the freshwater wetland and SAV monitoring stations and shall include the GPS coordinates for each transect and plot (the four corners of each wetland plot and starting and ending points for each SAV transect).

b. **Monitoring timeline**
All freshwater wetland monitoring stations shall be monitored at least one time prior to the commencement of construction (within one year of commencement of dredging) during the peak growing season, twice per year throughout the duration of dredging, and twice per year for at least 10 years after completion of the last construction contract (i.e., final phase of dredging). Biannual wetland surveys shall be conducted at the beginning (April – May) and at the end (September – October) of the growing season.

All SAV stations shall be monitored one time prior to the commencement of dredging (within one year of commencement of dredging) during the peak growing season. SAV surveys shall be conducted quarterly throughout the duration of dredging, including once during the peak growing season (between June 1 to August 1) and in (or as soon as practicable, but no more than 30 days from) November, February, and May. Quarterly SAV monitoring shall continue for at least 10 years after the completion date of the last construction contract.

Monitoring shall occur at the same time of year for all surveys (i.e., pre-, during and post-construction) to reduce seasonal variation between surveys.

c. **Freshwater wetland survey methods**

i. A minimum of three monitoring stations shall be permanently established and repeatedly surveyed at each wetland location (Specific Condition 34a). The first monitoring station at each wetland location shall be established the furthest downstream, in a location with evidence (i.e., extant data such as that available from STORET) of no prior salinity measurements greater than 0.5 parts per thousand (ppt). Prior to establishing monitoring stations, the Permittee shall ground-truth the proposed location of each downstream monitoring station to ensure that wetlands do not have any visible signs of salinity intrusion or salt-stress. The second and third monitoring stations at each wetland location will be established at 1 km intervals upstream of the first (furthest downstream) wetland monitoring station.

ii. A nested plot design shall be used for freshwater wetland surveys. One plot (10 m x 20 m) shall be established at each station, within which smaller plots (quadrats) will be sampled to quantify ground-cover of plants. The corners of each plot / quadrat shall be physically marked by flagging and staking, and corner coordinates shall be recorded using digital GPS (per Specific Condition 34(a)) to ensure that the same areas will be relocated and repeatedly sampled during each survey.

iii. All plants within each plot shall be identified to the lowest possible taxonomic level, and all plant taxa present within each plot shall be recorded and reported. The abundance (i.e., percent cover) of plant taxa shall be quantitatively surveyed and reported, as described below.

Within each of the 10 m x 20 m plots, total percent canopy cover of all plants and percent canopy cover for each of the dominant plant taxa (i.e., the top five most abundant plants [by cover] or those plants that constitute greater than 20% cover at the monitoring station) shall be quantified at each survey location. If understory / subcanopy plants are present, then the total percent cover for each forest layer and the percent cover of dominant plant taxa (as defined above) in each layer of the forested wetlands shall be quantified. Canopy cover will be visually estimated using a handheld device such as a moosehorn or spherical densitometer. The same type of canopy estimation device shall be used for all wetland surveys (i.e., over time and across sites).

Percent cover for plants in the ground-layer (including but not limited to seedlings, saplings, and herbaceous vegetation) shall also be visually assessed within at least 20 (1 m x 1 m) permanent plots (i.e., quadrats) within each of the 10 m x 20 m plots. Total percent ground-cover and percent cover of each dominant plant taxa (as defined above) shall be quantified within each plot.

The same visual census technique(s) for quantifying percent cover of wetland plants shall be used for all surveys (i.e., over time and across sites). Percent cover shall be estimated as precisely as possible, but shall be reported at least to the nearest 10%. The precision of wetland plant cover data shall be consistent across all wetland surveys (i.e., over time and across sites).

iv. The condition / health of all plants within each plot shall be assessed. Any visually conspicuous signs of salt stress shall be noted during each survey. Signs of stress may include (but are not limited to) yellowing needles / leaves, loss of needles / leaves, and dying limbs or trees.

v. Plant communities shall be mapped for the purpose of documenting spatial distribution and delineating distinct plant community types.

vi. Representative photographs shall be taken within each plot and shall include photographic evidence of any stress (or lack of stress) observed.

vii. A qualitative description of soil conditions and characteristics (e.g., saturation, grain size, coloration) shall be provided, and quantitative assessments of soils shall be conducted (as described below). Soils shall be sampled and tested for salinity and biogeochemical properties, including (but not limited to) the following:

- Soil samples (at least two cores) shall be taken from each wetland during each survey. Salinity and pH of water filling the sampling borehole will be measured directly with field probes (if water is present). In the lab, pH will be measured again using a 5:1 water-to-soil mix, and soil salinity will be measured using the saturated paste method.
- Field measurements using a soil conductivity probe shall also be collected at several locations within each monitoring station.
- Biogeochemical monitoring shall be conducted to determine whether soils are methanogenic or sulfate-reducing.

viii. The Biological Monitoring Plan (BMP) shall include additional information on the field and laboratory procedures outlined above and shall include sufficient detail to enable qualified personnel to replicate surveys and reproduce results. The BMP shall also include:

- A detailed description of how monitoring data will be reported and statistically analyzed to document changes in wetland communities, including an explanation of each analytical method along with the justification for using that particular method and how it was determined to be the most appropriate approach.
- An analysis demonstrating that survey methods (e.g., replication – the number of plots that will be surveyed) are sufficient to document a shift

in community structure, as evidenced by shifts in taxonomic composition and / or abundance of wetland plants.

d. **SAV survey methods**

Methods previously/currently used by the SJRWMD to characterize eelgrass (*Vallisneria americana*) shall be used, as summarized below:

i. At each station, 5 transects shall be established perpendicular to the St. Johns River shoreline. Transects shall be parallel to one another and spaced at distances of 0, 12, 25, 38, and 50 meters (m) relative to the permanent benchmark at each site. Transects shall extend from the shoreline to the deep-water edge of the SAV bed. The entire extent of the SAV bed shall be sampled. A visual assessment shall be conducted 10 m beyond the last "bare" quadrat to ensure that no plants are present along each transect.

ii. Line-intercept surveys shall be conducted to document the linear extent (recorded to the nearest 0.1 m) of each SAV taxa present along each transect.

iii. Data shall be collected at regular intervals along each transect, using a 0.25 m x 0.25 m quadrat. Quadrats shall be placed at intervals equal to 10% of the measured bed width (determined using the line-intercept survey results). Quadrats shall be separated by at least one meter and spaced no more than 20 m apart from one another. The last quadrat shall always be sampled at the deep-water edge of the SAV bed. The exact position of each quadrat (i.e., distance along transect) shall be reported.

iv. Within each quadrat, the presence/absence of vegetation shall be reported.

v. If SAV is present, the canopy height of each plant taxa shall be measured using a representative individual, and such data shall be reported.

vi. All floating and emergent taxa present within quadrats shall be identified and reported.

vii. Total percent cover of SAV shall be estimated within each quadrat. Cover shall be reported using standard categories developed by SJWRMD: 0 = bare (0% cover), 1 = sparse (1 – 32% cover), 2 = moderate (33 – 65% cover), 3 = heavy (66 – 100% cover).

viii. If eelgrass inflorescence is present in a quadrat, it shall be reported. The percentage of quadrats along each transect containing eelgrass with visible inflorescence shall be reported.

ix. Within each quadrat, sediment shall be qualitatively assessed and assigned to one of three categories: 1 = sandy, 2 = mucky-sand, 3 = muck. All other substrates shall be denoted as 0, i.e., rock or clay.

x. Representative photographs shall be taken along each transect at all stations.

e. **Reporting**
The Permittee shall notify the Department's JCP Compliance Officer (within 24 hours via email) when each biological survey is initiated and when each survey is completed.

All raw data shall be made available upon request to the JCP Compliance Officer in Excel format (and copies of scanned field sheets) as soon as the data becomes available and has been checked for quality control / assurance, but no more than 45 days after each freshwater wetland and SAV monitoring event. If the raw data files are too large to email at the time of the request, the data shall be made available either via a hard drive (hard drive provided by the Permittee) or shall be placed by the Permittee on a file transfer site that is accessible to the Department.

No later than 120 days after the final (10 years post-construction) biological monitoring surveys for wetlands and submerged aquatic vegetation have been completed, a final report shall be submitted that summarizes the results of all biological monitoring surveys conducted pre-, during, and post-construction ("Final Biological Monitoring Report"). The Final Biological Monitoring Report shall include a comparison of the results from each survey year to the pre-construction baseline survey data; the report shall also include an analysis and discussion of temporal trends (i.e., changes in biological communities over the entire duration of monitoring). The results of biological monitoring surveys shall be presented in the context of water quality monitoring data (e.g., salinity and flow rate). Monitoring results shall also be compared to the findings of other relevant surveys of the wetland and submerged aquatic vegetation communities in the project area, which shall be compiled per Specific Condition 36.

Corrective Action Plan

35. The Permittee shall submit a draft Corrective Action Plan (CAP) to the Department, as soon as possible, but no later than 120 days prior to the commencement of construction and shall coordinate with the Department to finalize the CAP; coordination on the CAP shall include meetings, if requested by the Department. The Permittee shall submit the final CAP at least 30 days prior to commencement of construction (Specific Condition 4(e)) for review by the Department. If deemed acceptable by the Department, the final CAP shall be incorporated by reference in this permit through a permit modification.

The purpose of the CAP is to establish the process that will be utilized by the Permittee (and/or by the Local Sponsor as set forth in the LSA) to determine if salinity has increased as a result of the project (and the extent to which the salinity increase was

caused by the project) and has resulted in impacts to resources, and, if so, to determine appropriate compensatory mitigation measures. The CAP shall describe in detail the specific actions that will be taken by the Permittee (and / or by the Local Sponsor as set forth in the LSA) and provide a timeframe for initiating and completing each action in the CAP.

Actions outlined in the Corrective Action Plan shall include, but are not limited to, additional investigations (e.g., submittal of additional analyses and/or modeling results to evaluate monitoring data and assess potential impacts), collection of supplemental field data (i.e., to assess ecological parameters and the condition of resources and evaluate if changes are caused by the project), and compensatory mitigation, if impacts occur as a result of the activities authorized by this permit.

At a minimum, the actions below (outlined in Exhibit 9) shall be included in the CAP:

a. **Annual Assessment**: The purpose of the annual assessment is to identify trends in water quality monitoring data and to evaluate the status of biological communities. The primary objective of the annual assessment is to determine if salinity has increased relative to pre-project baseline salinity levels. The second objective is to determine if biological communities have changed relative to their pre-project condition.

Reports for the annual water quality and biological monitoring assessments shall be submitted to the JCP Compliance Officer and posted on a public website by March 1st of each year. Additionally, the Permittee (and / or Local Sponsor) shall provide the Department with all data used in (and generated by) the annual assessment within 45 days of any request.

i. **First-Level Analysis and Reporting of Water Quality Data:** A report summarizing the First-Level Analysis of water quality data (salinity, water flow, and water level) collected from December 1st thru November 30st for six water quality monitoring stations, including at least four main stem stations (Dames Point, Acosta Bridge, Buckman Bridge, and Red Bay Point) and two tributary stations (Pottsburg Creek and Ortega River), shall be submitted on an annual basis (“Annual First-Level Water Quality Monitoring Report”).

The Annual First-Level Water Quality Monitoring Report shall include a detailed methods section. The methods section of the report shall include a thorough description of all analytical procedures (including but not limited to software programs / packages used for analyses, statistical methods including any tests used to verify assumptions, and transformations of data) with sufficient detail for an independent party with statistical expertise to replicate the procedures and verify the results. The methods section of the Annual

First-Level Water Quality Monitoring Report shall demonstrate that the most appropriate analyses were conducted for each statistical comparison.

The Annual First-Level Water Quality Monitoring Report shall describe patterns in the salinity data for the monitoring period. The Annual First-Level Water Quality Monitoring Report shall provide information on the magnitude, frequency, duration, and location(s) of increased salinity relative to pre-project baseline salinity levels.

The annual assessment of water quality data (i.e., First-Level Analysis) shall follow a tiered approach described below, and shall be reported in the Annual First-Level Water Quality Report:

Tier 1 - Descriptive Statistics: Summary statistics for salinity measurements for each of the six monitoring stations, including the arithmetic mean (i.e., average) and metrics of variability (e.g., standard deviation) at weekly, monthly, seasonal and annual time scales shall be presented in the annual report. For the purpose of the Tier 1 analysis, seasons shall be defined as December 1 – March 31, April 1 – July 31, and August 1 – November 30.

The Tier 1 analysis shall include:

- Box plots for salinity data
- Description of key percentiles, including at least 90^{th} and 95^{th} percentiles
- Cumulative frequency and / or quartile plots

If results of the Tier 1 analyses demonstrate an increase in salinity relative to the pre-project baseline salinity levels, then the Tier 2 analysis (described below) shall be conducted. For example, if the 90^{th} or 95^{th} percentiles are greater than the respective percentiles for the assessment period relative to the pre-project baseline, then Tier 2 analysis will be required.

Tier 2 – Frequency of Salinity Stress Events: The frequency of salinity stress events shall be quantitatively analyzed as described below:

- Persistence plots showing changes in the duration of 7, 30, 60 and 90 day moving average salinity compared to the pre-project baseline period shall be provided for all monitoring stations.
- The frequency of moderate to extreme stress events for SAV resources shall be calculated for all monitoring stations and compared to the frequency of salinity stress events during the pre-project baseline period. Salinity stress events for SAV shall be defined according to the Environmental Impact Statement (EIS) with consideration of both the duration and magnitude of elevated salinity. For example:

  - A moderate stress event is a 90 day average salinity greater than 10 ppt or a 30 day average salinity greater than 15 ppt.
  - An extreme stress event is a 90 day average salinity greater than 15 ppt or a 7 day average salinity above 25 ppt.
- Salinity stress events relevant to freshwater wetlands shall be quantified. The frequency of salinity measurements greater than 1.0 ppt during high tide at the Pottsburg Creek, Ortega River and Buckman monitoring stations shall be reported for the assessment period and compared to the frequency of stress events during the baseline period.

If the results of the Tier 2 analysis indicate that the frequency of salinity stress events has increased relative to the frequency of events pre-project, beyond natural variability, then Tier 3 analyses (below) shall be conducted and reported in the Annual First-Level Water Quality Monitoring Report. Natural variability shall be determined based on the pre-project baseline frequency plus a 95% confidence interval.

Tier 3 – Salinity Relative to Water Flow and Water Level: The Annual First-Level Water Quality Monitoring Report shall include a discussion of temporal patterns in salinity with respect to flow rate and water level. Salinity patterns shall be presented at monthly, seasonal and annual time scales. For the purpose of the Tier 3 analysis, seasons shall be defined as December 1 – March 31, April 1 – July 31, and August 1 – November 30.

Scatter plots shall be provided for salinity data relative to flow rate data for each of the six monitoring stations. A scatter plot shall be provided for data collected during the monitoring period, and a separate plot shall be provided with the pre-project data for comparison. For each figure, information shall be provided on the strength (e.g., regression coefficient) and statistical significance of the relationship between variables (i.e., salinity and flow).

A linear transfer function shall be used to evaluate whether salinity has increased relative to the baseline condition. The linear transfer function shall incorporate two components: 1) the relationship between freshwater flow and salinity, and 2) deviations in water-level residuals. The conceptual framework for developing this transfer function is described in Exhibit 10. The final linear transfer function and a report describing how this was developed shall be provided prior to construction, with the final CAP (pursuant to Specific Condition 4). If greater than 5% of the salinity measurements recorded during the assessment period exceed the pre-project baseline (i.e., as determined using the linear transfer function) plus 1.64 standard deviations, then the Second-Level Analysis (see below) shall be conducted.

ii. **Analysis and Reporting of Biological Monitoring Data:** A report summarizing all of the biological monitoring data collected for freshwater wetlands and SAV (pursuant to Specific Condition 34) shall be submitted on an annual basis ("Annual Biological Monitoring Report").

Annual Biological Monitoring Reports shall include:

- Detailed description of methods used to collect and analyze data
- Description of current conditions of the biological communities, including information on all parameters required to be monitored in Specific Condition 34 (above)
- Comparison of current conditions to pre-construction conditions and a description of changes to any parameters that were monitored
- Habitat map that shows the spatial distribution of (and delineates) distinct plant community types for each of the freshwater wetland stations
- Representative photos from each of the wetland plots and SAV transects

If monitoring results indicate a change in the condition of wetlands or SAV that exceeds the natural variation in these systems (as evidenced by data collected prior to construction, which shall be collected pursuant to Specific Condition 34, and shall be compiled pursuant to Specific Condition 36), then the Permittee and / or Local Sponsor shall coordinate with the Department to determine which actions, if any, are appropriate and feasible. The scope and scale of actions (e.g., the collection of additional field data or additional analyses of monitoring data) that will be required by the Department will be proportionate to the spatial extent and magnitude of biological changes documented at monitoring stations. Note: if no change in salinity relative to pre-project levels is documented by the First-Level Salinity Analysis (Tier 1, 2 and 3), then no action shall be required.

b. **Second-Level Analysis of Water Quality Data**: If the results of the First-Level Analysis demonstrate an increase in salinity relative to pre-project baseline salinity levels, then the Permittee (and / or Local Sponsor) shall perform a more thorough (i.e., Second-Level) analysis of water quality data, which shall include watershed-scale hydrodynamic modeling. The purpose of the Second-Level Analysis is to identify the source(s) of salinity changes (e.g., the project, water-level, flow rate, rainfall / drought, storm events, or other factors), and the extent to which changes in salinity are attributable to the project relative to other factors that impact salinity. Data from all of the water quality monitoring stations in the main-stem and tributaries (not only the 6 stations that were used in the First-Level Analysis) shall be used for the hydrodynamic modeling.

A report summarizing the findings of the Second-Level Analysis ("Second-Level Water Quality Report") shall be submitted to the Department no more than 90 days after the

date of submission of each Annual First-Level Water Quality Monitoring Report that demonstrates an increase in salinity relative to pre-project baseline salinity levels. Additionally, the Permittee (and / or Local Sponsor) shall provide the Department with all data used in (and generated by) the Second-Level analysis within 90 days of any request.

The Second-Level Water Quality Report shall provide a detailed description of all modeling procedures (methods and parameters) and statistical analyses that were performed on the data. The Second-Level Water Quality Report shall include a thorough description of all analytical procedures (including, but not limited to, software programs / packages used for modeling and analyses) with sufficient detail for an independent party with statistical / modeling expertise to replicate the procedures and verify the results. The Second-Level Water Quality Report shall include information on the calibration, verification, and validation of the model, such as time series plots and statistics on water level, salinity, current and flow. If requested by the Department, all of the files that are necessary to run the model shall be provided within 90 days.

The Second-Level Water Quality Report shall provide summary statistics such as the mean, standard deviation, and root mean squared error. The Second-Level Water Quality Report shall include statistical comparisons between the baseline condition and the with-project condition. The Second-Level Water Quality Report shall include salinity duration curves and tables for each of the monitoring stations showing the comparison between the baseline condition and the with-project condition. The results should include a description of the relative contribution of the project and all other factors (including, but not limited to, water level, wind and flow) to the increase in salinity that was identified in the First-Level analysis.

Even if hydrodynamic modeling is not required (pursuant to Specific Condition 35(a)), hydrodynamic modeling shall be performed 5 years after the commencement of construction, as well as 5 and 10 years after the completion of construction to evaluate salinity and determine the effects (if any) of the project on salinity over time. Following the completion of each of these modeling events, the Permittee shall submit a Hydrodynamic Modeling Report, which shall include all information that is required for the Second-Level Water Quality Report (as described above); these Hydrodynamic Modeling Reports shall be submitted within 90 days of the Annual First-Level Water Quality Monitoring Report, which is due March 1st.

c. **Ecological Assessment:** If the Second-Level Analysis (above) performed by the Permittee (and / or Local Sponsor) pursuant to Specific Condition 35(b) indicates that changes in salinity are potentially caused by the project, then the Permittee (and / or Local Sponsor) shall perform additional analyses and / or modeling to evaluate whether increased salinity stress could have adversely affected biological resources (e.g., stress-acre days for SAV or frequency of tidal events for wetlands).

A report summarizing the ecological modeling results ("Ecological Modeling Report") shall be submitted to the Department no later than 90 days after the date of submittal for the Second-Level Water Quality Report (Specific Condition 35(b)). The Ecological Modeling Report shall include a thorough description of modeling procedures (e.g., software, codes, parameters) with sufficient detail for an independent party with modeling expertise to replicate the procedures and verify the results. The Permittee (and/or Local Sponsor) shall provide the Department with all data used in (and generated by) the ecological modeling within 45 days of any request. The Ecological Modeling Report shall include a detailed results section describing the spatial extent, duration and magnitude of increased salinity stress on resources that were quantified using the models.

The Ecological Modeling Report shall also include an analysis of biological monitoring results (i.e., field data collected pursuant to Specific Condition 34) and describe any changes in biological communities that have occurred over time, including a detailed comparison of the pre-project condition or resources with the condition of resources that were evaluated pursuant to this permit.

d. **Mitigation Consultation and Evaluation:** If modeling and follow-up analyses performed pursuant to Specific Conditions 35 (a) - (c) indicate that changes in salinity are caused by the project and impacts on biological resources are indicated by ecological modeling and/or are documented by *in situ* biological monitoring data, then compensatory mitigation shall be coordinated with the Department. The Permittee and/or Local Sponsor shall initiate coordination with the Department regarding compensatory mitigation immediately following the Ecological Assessment (above); however, the implementation of mitigation may be postponed until after the project has been completed (i.e., after construction) but could be subject to increased time-lag.

If compensatory mitigation is required by the Department, the Permittee/Local Sponsor shall submit a permit modification request, including all information needed for a UMAM assessment, and a mitigation plan to compensate for impacts. This modification request shall include a description of all activities proposed as compensatory mitigation, including information on properties that were acquired and preserved ("Preserved Property") to satisfy Federal requirements for this project. The Preserved Property acquired by the Local Sponsor to satisfy Federal requirements shall be considered an acceptable and appropriate type of compensatory mitigation by the Department. The Department will use UMAM to determine the acreage of mitigation required to offset impacts. The Local Sponsor shall be responsible for any compensatory mitigation that exceeds the mitigation credits calculated using UMAM for the Preserved Property.

36. **Establishment of Baseline/Data Bank:** Prior to completing the first annual assessment (pursuant to Specific Condition 35(a)), the Permittee shall compile extant baseline (pre-construction) data on all water quality and biological communities that are necessary to evaluate changes in the ecosystem that may be caused by the activities authorized in this

permit. For example, the Permittee shall locate all available water quality monitoring data that has been collected (or are being collected) by other agencies (such as USGS, SJRWMD, NOAA) and any reports on biological communities in the project area that have been previously published.

The Permittee shall make these baseline (pre-construction) data available to the Department within 45 days of the Department's request for such data. If raw data files that are to be provided by the Permittee to the Department are too large to transmit by email, then the data shall be made available either via a hard drive (hard drive provided by the Permittee) or shall be placed by the Permittee on a file transfer site that is accessible by the Department. Alternatively, a hyperlink may be provided to the Department for any of the baseline data that is publically available online.

All information readily available on water quality for the project area shall be used to assess historical trends and evaluate changes in salinity throughout the monitoring period. However, data for a period of time ranging from 5 to 10 years prior to the commencement of construction shall be used as the baseline dataset for hydrodynamic modeling (pursuant to Specific Condition 35(b) above). Although the baseline period will be established prior to construction, the baseline dataset shall be representative of the current condition of the project area at the time of construction. The baseline period will be established over a period of time of sufficient duration to include interannual variation in flow rate; the average flow rate for the baseline period shall be within 0.5 standard deviations of the average annual flow rate for the entire period of record.

SPECIFIC CONDITION – POST-CONSTRUCTION

37. Within 90 days after completion of authorized activities under each construction contract, the Permittee shall submit a notice of completion to the JCP Compliance Officer that includes the following information:

    a. The permit number (0129277-017-BI) and the project name (Jacksonville Harbor Federal Channel Expansion).

    b. A copy of any post-construction drawings required of the Contractor or survey performed by the Corps. If any of the completed activities differs substantially from the permitted plans, any substantial deviations shall be noted and explained. Any significant changes shall require a permit modification.

SPECIFIC CONDITION – OPERATION AND MAINTENANCE ACTIVITIES

38. Salinity and water flow monitoring and biological monitoring shall be conducted by the Permittee for one year after the completion date of dredging as described in Specific Conditions 26-35 above. JaxPort will fulfill the monitoring and reporting requirements

for an additional 9 years as set forth in the Local Sponsor Agreement with the Department.

GENERAL CONDITIONS:

1. This permit, including its general and Specific Conditions, must be construed in light of the February 28, 2006 Interagency Coordination Agreement for Civil Works Projects (ICA) between the Department and the U.S. Army Corps of Engineers (Corps). As recognized in the ICA, the Department has the authority to include reasonable conditions in this permit. All of the conditions in this permit, both general and specific, are enforceable to the extent sovereign immunity has been waived under 33 U.S.C. §§ 1323 and 1344(t). The ICA is incorporated herein by reference.

2. All activities approved shall be implemented as set forth in the drawings incorporated by reference and in compliance with the conditions and requirements of this document. The Corps shall notify the Department in writing of any anticipated changes in:

   a) operational plans;
   b) project dimensions, size or location;
   c) ability to adhere to permit conditions;
   d) project description included in the permit;
   e) monitoring plans.

   If the Department determines that a modification to the permit is required then the Corps shall apply for and obtain the modification. Department approval of the modification shall be obtained prior to implementing the change, unless the change is determined by the Department to reduce the scope of work from that authorized under the original permit, and will not affect compliance with permit conditions or monitoring requirements.

3. If, for any reason, the Corps does not comply with any condition or limitation specified herein, the Corps shall immediately provide the Department with a written report containing the following information:

   a) a description of and cause of noncompliance;
   b) the period of noncompliance, including dates and times;
   c) impacts resulting or likely to result from the non-compliance;
   d) steps being taken to correct the non-compliance; and
   e) the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

   Compliance with the provisions of this condition shall not preclude the Department from taking any enforcement action allowed under state law with respect to any non-compliance.

4. The Corps shall obtain any applicable licenses, permits, or other authorizations which may be required by federal, state, local or special district laws and regulations. Nothing herein constitutes a waiver or approval of other Department permits or authorizations that may be required for other aspects of the total project.

5. Nothing herein conveys to the Corps or creates in the Corps any property right, any interest in real property, any title to land or water, constitutes State recognition or acknowledgment of title, or constitutes authority for the use of Florida's sovereign submerged lands seaward of the mean high-water line or an established erosion control line, unless herein provided, and the necessary title, lease, easement, or other form of consent authorizing the proposed use has been obtained from the State.

6. Any delineation of the extent of a wetland or other surface water submitted as part of the application, including plans or other supporting documentation, shall not be considered specifically approved unless a Specific Condition of this authorization or a formal determination under section 373.421(2), F.S., provides otherwise.

7. Nothing herein authorizes any entrance upon or activities on property which is not owned or controlled by the Corps or local sponsor, or conveys any vested rights or any exclusive privileges.

8. This document or a copy thereof, complete with all conditions, attachments, modifications, and time extensions shall be kept at the work site of the authorized activity. The Corps shall require the Contractor to review this document prior to commencement of the authorized activity.

9. The Corps specifically agrees to allow Department personnel with proper identification, at reasonable times and in compliance with Corps specified safety standards access to the premises where the authorized activity is located or conducted for the purpose of ascertaining compliance with the terms of this document and with the rules of the Department and to have access to and copy any records that must be kept; to inspect the facility, equipment, practices, or operations regulated or required; and to sample or monitor any substances or parameters at any location reasonably necessary to assure compliance. Reasonable time may depend on the nature of the concern being investigated.

10. At least forty-eight (48) hours prior to the commencement of authorized activity, the Corps shall submit to the Department a written notice of commencement of activities indicating the anticipated start date and the anticipated completion date.

11. If historic or archaeological artifacts such as, but not limited to, Indian canoes, arrow heads, pottery or physical remains, are discovered at any time on the project site, the Corps shall immediately stop all activities in the immediate area which disturb the soil

and notify the Department and the State Historic Preservation Officer. In the event that unmarked human remains are encountered during permitted activities, all work shall stop in the immediate area and the proper authorities notified in accordance with Section 872.05, F.S.

12. Within a reasonable time after completion of construction activities authorized by this permit, the Corps shall submit to the Department a written statement of completion. This statement shall notify the Department that the work has been completed as authorized and shall include a description of the actual work completed. The Department shall be provided, if requested, a copy of any as-built drawings required of the Contractor or survey performed by the Corps.

Executed in Leon County, Florida,
this 19 day of February 2016.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Lainie Edwards, Ph.D.
Program Administrator
Beaches, Inlets and Ports Program
Division of Water Resource Management

Attachments:
Exhibit 1, Project Drawings and Design Specifications (36 pages)
Exhibit 2, Timucuan National Ecological and Historic Preserve Map (1 page)
Exhibit 3, Nassau River – St. Johns River Marshes Aquatic Preserve Map (1 page)
Exhibit 4, Local Sponsor Agreement (3 pages)
Exhibit 5, Corrective Action Plan – Development of the Combined LSJR Main Stem, Tributary / Salt Marsh Hydrodynamic Model and the Hydrology Model with Tributary Scale Radar Rainfall
Exhibit 6, Construction Commencement Notice Form (1 page)
Exhibit 7, Salinity and Water Flow Monitoring Stations Map (3 pages)
Exhibit 8, Salinity and Water Flow Monitoring Stations Gage Name and GPS Coordinates List (1 page)
Exhibit 9, Corrective Action Plan – Flowchart (1 page)
Exhibit 10, First-Level Tier 3 Conceptual Analysis (6 pages)

Copies furnished to:

Jason Spinning, Corps	Thomas Adams, DEP OGC
Laurel Reichold, Corps	Bob Brantly, DEP DWRM
Mike Hollingsworth, Corps	JCP Compliance Officer, DEP DWRM
Jason Harrah, Corps	Betsy Hewitt, DEP Office of General Counsel
Paul Stodola, Corps	Dee Ann Miller, DEP Office of Secretary
Wendy Dauberman-Zerby, Corps	Jim Maher, DEP NE District
Joe Miller, Jaxport	Chris Stahl, DEP Office of Intergovernmental Affairs
David Kaufman, Jaxport	Andrea Noel, DEP Coastal Office
David Stubbs, Jaxport	Scott Sanders, FWC
Scott Skinner, Jaxport	Laura DiGruttolo, FWC
Frederick Aschauer, DEP DWRM	Miles Croom, NOAA Fisheries Service
Jane Herndon, DEP DWRM	Dawn Jennings, FWS
Marty Seeling, DEP DWRM	Heinz Mueller, EPA
Roxane Dow, DEP DWRM	Chris Hughes, NPS
Jennifer Peterson, DEP DWRM	Gian Basili, SJRWMD
Kirk White, DEP OGC	Lisa Rinaman, St. Johns Riverkeeper

CERTIFICATE OF SERVICE

The undersigned hereby certifies that this permit, including all copies, were mailed before the close of business on **07/29/2016**, to the above listed persons.

FILING AND ACKNOWLEDGMENT

FILED, on this date, under 120.52(7) of the
Florida Statutes, with the designated Department Clerk,
receipt of which is hereby acknowledged.

Sandra K Rogers 07/29/2016

Clerk Date